



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,890	08/02/2006	Markus Mayer	14219-107US1 P2003.0432 U	7206
26161	7590	05/19/2008	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			TAN, VIBOL	
			ART UNIT	PAPER NUMBER
			2819	
			MAIL DATE	DELIVERY MODE
			05/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,890	Applicant(s) MAYER ET AL.	
	Examiner Vibol Tan	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-15 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/9/06; 3/20/06; 8/2/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, it is not clear of the term “equals about zero”. Clarification is necessary.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 7-15 are rejected under 35 U.S.C.102 (b) as being anticipated by Tsutsumi et al. (U. S. PAT. 6,121,860).

In claim 1, Tsutsumi et al. teaches all claimed features in Fig. 2, an acoustic wave transducer comprising: an acoustic track comprising electrode fingers (9a) for different electrodes (13a, 13b), the electrode fingers engaging to form exciting finger pairs (as seen), the acoustic track comprising marginal areas (signal side bus bar) and an excitation area (excitation section), the electrode fingers engaging in the excitation area, the marginal areas and the excitation area being located along a transverse

Art Unit: 2819

direction of the acoustic wave transducer (as shown); wherein a longitudinal phase speed (vertical direction) of an acoustic wave in the acoustic track is less in a marginal area (smaller in area) than in the excitation area; wherein the acoustic wave is excitable and has a transversal basic mode (inherent); wherein the following applies in the transversal basic mode for a wave number k_y : $(k_y)^2 > 0$ in a marginal area, and $(k_y)^2 < 0$ in an exterior area outside the acoustic track; and wherein k_y is smaller in the excitation area than in the marginal areas and in the exterior area (since Fig. 2 of Tsutsumi teaches all the features as discussed above, Fig. 2 of Tsutsumi must meet the conditions of $(k_y)^2 > 0$ in a marginal area, and $(k_y)^2 < 0$ in an exterior area outside the acoustic track, and wherein k_y is smaller in the excitation area than in the marginal areas and in the exterior area).

In claim 3, Tsutsumi et al. further teaches the acoustic wave transducer of claim 1, wherein the excitation area comprises partial tracks (9a) in the transverse direction (horizontal direction), the partial tracks corresponding to partial transducers that are interconnected in series and/or in parallel.

In claim 7, Tsutsumi et al. further teaches the acoustic wave transducer of claim 1, wherein the marginal areas each comprise a continuous metal strip (vertical side for 13a) in a longitudinal direction and have a transverse width of $\lambda_y/4$, where λ_y is a wavelength of the transversal basic mode in a corresponding marginal area (inherent).

In claim 8, Tsutsumi et al. further teaches the acoustic wave transducer of claim 1, wherein a number of electrode fingers (plurality of 9a) per unit of length is greater in the marginal areas than in the excitation area.

In claim 9, Tsutsumi et al. further teaches the acoustic wave transducer of claim 1, wherein the electrode fingers (9a, 9b) for different electrodes (13a, 13b) define a periodic grid in the excitation area.

In claim 10, Tsutsumi et al. further teaches the acoustic wave transducer of claim 1, wherein the excitation area comprises unidirectionally radiating or reflecting cells (10a, 10b) in a longitudinal direction (vertical direction) of the acoustic wave transducer; and wherein electrode fingers (9a, 9b) in the excitation area that are adjacent in the longitudinal direction define a cell to radiate the acoustic wave in a specific direction or a cell with a reflecting effect.

In claim 11, Tsutsumi et al. further teaches the acoustic wave transducer of claim 1, wherein the acoustic track is a first acoustic track, and wherein the acoustic wave transducer further comprises: at least one additional acoustic track (track to the right) comprising an excitation (excitation section) area and marginal areas (right vertical bus bar), the at least one additional acoustic track being substantially identical to the first acoustic track (as seen in Fig. 2), wherein the first acoustic track and the at least one additional acoustic track are substantially parallel (as seen); and an intermediate area (12) between acoustic tracks; wherein widths of marginal areas of the acoustic tracks produce a wave number k_y in the intermediate area that is smaller by at least one order of magnitude than in the marginal areas and in exterior areas of the acoustic tracks; and wherein a phase speed in excitation areas of different acoustic tracks and in the intermediate area is essentially same (as seen).

In claim 12, Tsutsumi et al. further teaches the acoustic wave transducer of claim 11, wherein a number of electrode fingers (fingers parallel to 9a or 9b) per unit of length in the intermediate area (12) is essentially equal to a number of electrode fingers per unit of length in excitation areas of different acoustic tracks.

In claim 13, Tsutsumi et al. further teaches the acoustic wave transducer of claim 12, wherein electrode fingers in the intermediate area (12) define a periodic grid (as seen).

Claim 14 corresponds to detailed circuitry already discussed similarly with regard to claim 7.

In claim 15, Tsutsumi et al. further teaches a filter (Fig. 2 is an acoustic wave filter) comprising the acoustic wave transducer of claim 1.

5. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2819

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vibol Tan/
Primary Examiner, Art Unit 2819